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ABSTRACT

Completion and cost data for six courses delivered in two different modes--home study and paced package--through Athabasca University were analyzed. Students in a home study course received tutorial support via the telephone and progress through the course was at the discretion of each individual learner. Students in a paced package course received tutorial support via the classroom instructor and progress through the course was instructor-determined. Results indicated that completion rates were substantially higher for paced package courses than for home study courses. In addition, estimated costs per student completion were lower for paced package courses, with one exception. Although the study concluded that paced package courses were more efficient, the study did not recommend the elimination of home study courses but suggested changes that would make them more cost-efficient while still providing a service for those who may not have any other means of acquiring higher education. (Author/KC)

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A Comparison Between Paced Package and Home Study Courses With Respect to Completion Data

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Abstract

Completion and cost data for six courses delivered in two different modes, home study and paced package, were analyzed. Students in a home study course received tutorial support via the telephone and progress through the course was at the discretion of each individual learner. Students in a paced package course received tutorial support via the classroom instructor and progress through the course was instructor determined. Results indicated that completion rates were substantially higher for paced package courses than for home study courses. In addition, estimated costs per student completion were lower for paced package courses, with one exception.

A Comparison Between Paced Package and Home Study Courses with Respect to Completion Data

In the Fall of 1976, Athabasca University, an open university, began offering a variety of courses via the classroom instructor. In some cases, the courses were at least partly built upon the curriculum plans for home study courses then in production or planning. For the most part, however, the courses were developed and delivered by locally recruited instructors. That is, the course outline, textbook selection, and evaluation instruments were all the responsibility of the instructor. Marking of all examinations was done by the instructor and generally a lecture or lecture plus seminar method of instruction was used. Courses with these characteristics came to be known as "instructor delivered" and are still in existence today.

As the university began producing more home study courses, a logical development occurred. That is, the materials developed for home study courses, the evaluation strategies, etc. were all used in the classroom delivered courses. These courses came to be known as "paced package" courses. Thus, the only difference between a paced package course and a home study course is the method of tutorial service and the pacing of the course. In a paced package course, local tutor-instructors meet with students bi-weekly or tri-weekly, depending on the situation. Enrollment begins at a given time and the learner's progress through the course is instructor paced. Three-credit paced package courses are scheduled to last approximately four months and six-credit courses are scheduled to last

approximately eight months.

In contrast, students in a home-study course may enroll at any time during the year (with a few exceptions, such as TV-delivered courses and lab courses). Students enrolling in a six-credit home study course are given 12 months to complete the course, and six months to complete a three-credit home study course. Progress through a home study course is at the discretion of each individual learner. In addition, students enrolled in home study courses may discontinue, "suspend" their study for a period of up to six months and also have the option of "extending" the time of study at the rate of ten dollars per month. Each student in a home-study course is assigned a tutor who provides tutorial services over the telephone.

In the Summer of 1979, Athabasca University's Academic Planning and Policy Committee (AP&PC) decided that it would like more information regarding completion data for paced package courses before it made a recommendation concerning the continual delivery of paced package courses. It was at this time that the authors, as part of Project REDEAL's activities, volunteered to analyze the existing data on paced package courses offered in the Fall of 1978 and the Spring of 1979.

Method and Procedures

Completion data from comparable home study courses was used as the basis of comparison for the paced package courses. A total of six courses were offered in both the home study and paced package mode during the Fall of 1978 and Spring of 1979. The four courses offered during the Fall

were: Introductory Psychology (206), An Introduction to the Study of Human Diversity (207), Literary Forms and Techniques (210) and Introductory Accounting (216). All are six-credit courses. The Spring offerings were: The Growing Years (228) and Administrative Principles (232). Both of these courses are three-credit courses.

A list of students enrolling in the paced package version of the above courses, along with individual course performance data, was generated by the Office of the Registrar. This list was then compared with the records of Regional and Tutorial Services, the office directly responsible for the administration of paced package courses, and adjustments were made when necessary. In an effort to create a comparable comparison group, only those students enrolled in the above home study courses during the same period as paced package students (September and October for Fall courses and January and February for Spring courses) were selected for this study. The Office of the Registrar generated course performance data for home study students meeting this criterion. These records were then confirmed and/or updated with the person responsible for the delivery of the home study courses.

Table 1 goes about here

Results

Table 1 presents the number of students enrolled in and completion rate for each home study and paced package course. Course numbers followed by a "0" (e.g. 2060) indicate that the course was home study

Course numbers followed by a "2" (e.g. 2062) indicate that the course was delivered via the paced package mode. Students in a paced package course had the option at anytime during the course to switch to the home study mode. Generally, a switch occurred at the end of a paced package course as a result of not completing the course in the time allotted. The completion rate given for each paced package course is based on initial enrollments. That is, students who switched and completed the course via the home study mode are included in these figures. However, a breakdown of completion rates for students finishing a course entirely under the paced package mode (e.g. 2062 → 2062), as well as, completion rates for students finishing a course after switching to the home study mode (e.g. 2062 → 2060) are also presented. For example, the completion rate for course 2062 is 53 percent. However, one student (20% of 5) completed the course after switching to the home study mode. The remaining 15 students (60% of 25) completed the course entirely in the paced package mode.

The results indicate that paced package courses have considerably higher completion rates than their home study counterparts. In addition, the majority of completions for paced package courses occur entirely under the paced package mode. The one exception is Accounting 2162 which accounts for all its completions after the students had switched to the home study mode. The general trend, however, was that if students did not complete the course in the time allotted by the classroom instructor, they did not complete the course.

Cost Analysis

Based upon a rate of pay for tutor-instructors in a six-credit, paced package course of $1000 for eight months, plus a $200 honorarium preparation fee, a paced package instructor would need approximately 21 students before he/she was on a cost-effectiveness par with the home-study tutor system. This was calculated by dividing $1200 by $56, the cost of $7 a month per student for eight months. This figure represents a rough comparison, since various additional expenses which might be incurred have not been taken into account. Given this comparison figure, only two of the six paced package courses appear to be as cost effective as the home study courses. However, when one calculates the cost per student completion a much different picture emerges.

Table 2 goes about here

Table 2 presents estimated costs per student completions for both home study and paced package courses. Cost per student completion for paced package courses was calculated by dividing the number of students completing a course, entirely in the paced package mode, into $1200 for six-credit courses and into $600 for three-credit courses. Cost per student completion for course 2162 was calculated in a slightly different manner (see Table 2). Cost per student completion for home study courses was calculated by dividing the number of course completers into an estimated cost for tutorial support. The cost for tutorial support was calculated by multiplying the cost per student per month,

$7, by the number of students still enrolled in the course after nine months. This figure was then multiplied by 12, the number of months students are given to complete a course without additional charges. It is believed that this procedure produces a conservative estimate since the cost for students completing the course before nine months was not included. In addition, it is believed that the majority of students still enrolled in a course after nine months will continue to be enrolled in the course for the remaining three months. Regardless of the accuracy of this assumption, the additional costs should be compensated by not including the costs of tutoring students who finished the course in less than nine months. By analyzing the data in the above manner, the results indicate that the paced package courses are more cost effective than home study courses in all but one case, course 228.

Conclusions and Implications

In summary, it appears that offering courses via the paced package mode is a viable and "successful" alternative for delivering courses to adult learners enrolled at Athabasca University. In addition to producing considerably higher completion rates, paced package courses also appear to be more cost effective than home study courses. Therefore, it is the author's opinion that the university should continue offering paced package courses to its learners as long as there continues to be the current demand for courses delivered in this manner. It is not the author's intentions, however to suggest that home study courses should be done away with and replaced with paced package courses. The

home study delivery mode is popular with learners for many reasons and is a system which allows adult learners access to higher education, who might otherwise not have the opportunity.

The data, however, does suggest that the university could greatly improve completion rates and costs in its home study courses. The university should continue to analyze its completion rates and delivery costs, and systematically investigate ways to improve its home study courses. The large cost of delivering a home study course, for example, is largely an artifact of the tutor pay system. A substantially large number of students remain enrolled in a home study course yet have discontinued their study. Under the tutor pay system in effect at the time of this study, tutors were paid $7 a month per student regardless of whether or not the student was actually working on the course. This cost, however, should greatly be reduced by the new pay scheme recently adopted by the University. The new tutor pay system pays a tutor a flat hourly rate and thus eliminates paying for students who are no longer working on the course, yet remain enrolled.

A final point should be made in regard to the accuracy of the data reported in this study. As with most sets of data, the accuracy of this information is dependant upon the measuring instruments. Our instruments were the computerized student records (Office of the Registrar), individual tutor-instructor records and records from the Office of Regional and Tutorial Services. These data were manually compiled. In a complex

system such as Athabasca University's there are many sources of information, many links of communication, and many possible delays. The probability of error has occurred here, even though we have checked for consistency from the various sources. It is also possible that other learners at other times during the year progressed through home-based courses differently. Finally, in a few courses (e.g. course 2070 and 2162) the number of learners was small and therefore the generality of the particular findings may be limited. The accuracy and generality of the data, however, should improve as more studies of this nature are undertaken.

Table 1

Summary of Course Completion Data for Six Home Study and Paced Package Courses

Course	Enrollments	Mode	Completion Rate
2060	N = 78	HS[1]	35% (4%)[3]
2062	N = 30	PP[2]	53%
2062 → 2062	N = 25	PP	60%
2062 → 2060	N = 5	PP + HS	20%
2070	N = 6	HS	17% (17%)[3]
2072	N = 12	PP	100%
2072 → 2072	N = 12	PP	100%
2072 → 2070	N = 0	--	--
2100	N = 48	HS	13% (21%)[3]
2102	N = 11	PP	45%
2102 → 2102	N = 8	PP	63%
2102 → 2100	N = 3	PP + HS	0%
2160	N = 81	HS	20% (3%)[3]
2162	N = 26	PP	35%
2162 → 2162	N = 7	PP	0%
2162 → 2160	N = 19	PP + HS	47%
2280	N = 27	HS	30%
2282	N = 16	PP	44%
2282 → 2282	N = 13	PP	54%
2282 → 2280	N = 3	PP + HS	0%
2320	N = 151	HS	13%
2322	N = 17	PP	76%
2322 → 2322	N = 15	PP	87%
2322 → 2320	N = 2	PP + HS	0%

[1] HS = Home Study

[2] PP = Paced Package

[3] Percentage of students still enrolled in course

Table 2

Estimated Cost Per Student Completion[1]

	PACED PACKAGE	HOME STUDY
Course 206	$80	$96
Course 207	$100	$420
Course 210	$204	$308
Course 216	$237[2]	$200
Course 228	$171	$89
Course 232	$92	$391

[1]Dollar amounts rounded to the nearest dollar

[2]Since no students completed course 2162 in the paced package mode, an additional $931 (the cost for nine students for four months of home study) was added to the $1200 base before dividing by the number of students completing.